signed to set forth the author's peculiar views, the work before us is a model of excellence; but if it is to be appraised as an elementary treatise designed to give beginners in economics a general grasp of the science, which would seem to be implied in its title, the reviewer must frankly say that, in his opinion, it is likely to prove somewhat one-sided.

T. N. CARVER.

Wealth and Welfare. By A. C. PIGOU. (London: Macmillan and Company. 1912. Pp. xxi, 493. 8s.)

There is a current play in which the heroine says to the hero, who has just avowed his devotion in distinctly unusual terms: "How dare you tell me such an interesting thing in such a horrid way?" Professor Pigou's book has already gained well-deserved praise from Professor Edgeworth,[1] and there is little danger that its brilliant quality and significance will go unappreciated among students of economics, who should be sufficiently hardened to withstand the somewhat benumbing effect of its style. So that if the present writer seems overcritical, Professor Pigou will understand that the very merits of the work make one resent its faults the more.

The book is a general treatise with a special point of view and method of attack which put the author's personal mark on everything he touches, from index numbers to outdoor relief. The point of view is the constant inquiry how society can get the maximum satisfaction-income from economic goods and services, and the method is an unusually keen and exacting deductive analysis, fortified with citations of fact which show remarkably wide and varied knowledge. But the *a priori* reasoning ever takes first place. Indeed, the author, in discussing the relative efficiency of public and private operation of utilities, frankly throws statistics out of court, as being vitiated by the disturbing factors of each individual case, and prefers to rely on the *a priori* balancing of two forces making for efficiency and four others making against it. Fortunately, the result with which he emerges is such as to corroborate the conclusions of the statisticians.

To epitomize such a work in a review is impossible. A delicately accurate method of weighting index numbers, a discussion of wastes arising when the fruits of improvements accrue to others than the creators, and of the possibility of correcting this by

[1] In *Economic Journal*, March, 1913.

taxes and bounties, a study of the effects of union wage-systems and of the relative advantages of discharging men in slack periods versus working them part time, of the industrial effects of charity and poor relief, of exempting savings from taxation, and of the possibility of diminishing business variations—these are some of the interesting topics of which space permits but a mention.

To treat monopoly price as a problem of the most efficient marshalling of society's productive forces, rather than of just profits, is an original undertaking, and it is followed up by diagrams with a novel duplex curve of supply prices to record the complex facts of increasing and diminishing returns. The conclusion is that simple competitive prices are too high for the best results in undertakings of increasing returns, and too low in those of diminishing returns, while a wisely discriminating monopoly tends to come nearer the ideal result. But there seems to be a *non sequitur* in the argument, so far as competitive businesses of diminishing returns are concerned, since the extra cost, which the author claims the competitive price ought to cover, consists of increases in rental values of lands already under cultivation,[2] and hence is a mere transference of income and not an outlay of labor or capital by society as a whole. It is an interesting circumstance that the criticisms of Professor J. B. Clark's *Control of Trusts* have been largely anticipated in the second edition of that book, appearing about the same time as *Wealth and Welfare.*

The reviewer's main accusation lies against an abuse of the mathematical method, with an unnecessary burden of algebra and a dangerous reliance on ocular intuition in interpreting diagrams. If algebraical symbols lead to more accurate results, no one can rightly object to their use. In this case they lend an appearance of definiteness to conclusions whose accuracy is conditioned by the assumptions from which they proceed; assumptions which are often themselves "unverified probabilities," while the very exactness of the equation form is a temptation to choose assumptions that are far removed from life but will fit the Procrustean formula.

In discussing the mobility of labor, as affected by ignorance and by costs of movement, the author taxes the reader's actuarial understanding with the following demand:

> Suppose that judgments are false, in such wise that, when comparing the marginal net product at B with that at A, people always

[2] See pp. 176-178. Also on pp. 196 and 206, certain of the conclusions seem to be vitiated by this fact.

attribute to it an excess over its actual value measured by K . . . . And let us suppose, further, that the costs of movement between A and B can be equated to an annual sum, spread over the period during which the unit that has moved may be expected to find profit in staying in its new place. The task of calculating this sum presents some difficulty (p. 114).

The calculation tacitly assumes, among other things, a definite rate of time-discount among necessitous people cut off from the loan market and so ignorant that their "aimless wandering" needs to be prevented by paternal guidance (p. 118). But Professor Pigou himself forgets to subtract the costs of movement from the increased product in estimating society's net gain,[3] being trapped into this error as a punishment for relying on a diagram to *prove* his proposition rather than merely for clearness in presenting it. The facts which are afterward cited as examples would stand stronger alone. This is not the only passage, nor the most extreme, that suggests the caption, "Cubist portrait of an economic man," or where one feels that time has been spent in elaborating doubtful *a priori* explanations for undisputed and very interesting facts.[4] In the matter of railroad rates, again, Professor Pigou maintains that the "cost of service" principle should be more closely followed:—a very commendable thesis, which might be supported by arguments far different from the dialectic exercise with which the author attempts to sweep away the doctrine of "joint cost" (pp. 216-217).

But it is hardly fair thus to present the author at his worst. At his best he puts the reader in his debt for many new outlooks, and he has made an enviably large contribution to dynamic economic theory.

J. M. Clark.

Amherst College.

Die gegenwärtige Krisis in der deutschen Volkswirtschaftslehre. By Ludwig Pohle. (Leipzig: A Deichert'sche Verlagsbuchhandlung Nachf. 1911. Pp. xiv, 136.)

Die Volkswirtschaft der Gegenwart und Zukunft. By Julius Wolf. (Leipzig: A Deichert'sche Verlagsbuchhandlung Nachf. 1912. Pp. xiv, 335. 6.50 m.)

These two books are related in that the author of the first is

[3] This may be verified by translating into English speech the diagram on p. 118 and the symbolic conclusions drawn therefrom.

[4] See especially p. 243 ff., and pp. 160 and 217, footnotes.